

What Is Claimed Is:

1. A fingerprint image acquisition apparatus including a fingerprint sensing device unit, a CCD
5 device unit, and an image processing unit, the image processing unit comprising:

an A/D converting unit for converting and outputting the fingerprint image outputted from the CCD device unit into a digital signal;

10 an image buffer for storing the digital signal from the A/D converting unit;

a controller for watching a state of the image buffer, i.e., whether the fingerprint image is inputted and stored to the image buffer, and storing the
15 fingerprint image to a video memory if the storage of the fingerprint image is confirmed;

a process executed by the controller, for dividing the fingerprint image into a plurality of unit blocks with a predetermined size; and

20 a process executed by the controller, for dividing the fingerprint image as a center region and a peripheral region, each including a predetermined number of unit blocks, and subdividing the unit block of the center region into at least two or more subdivided
25 blocks.

2. The apparatus of claim 1, wherein when storing the fingerprint image to the video memory after dividing it into a plurality of unit blocks, a fingerprint image is divided into the size of 8 X 6, i.e., unit blocks of 5 48 all.

3. The apparatus of claim 1, wherein the center region is set into at least one region.

10 4. The apparatus of claim 1, wherein the center region comprises a second center region in which the first unit block row and the last unit block row among the section of set subdivided blocks are set and a first center region in which the unit block except unit blocks 15 B set as the second center region among set unit blocks are set.

5. A fingerprint image acquisition apparatus including a fingerprint sensing device unit, a CCD 20 device unit, and an image processing unit, the image processing unit comprising:

an A/D converting unit for converting and outputting the fingerprint image outputted from the CCD device unit into a digital signal;

25 an image buffer for storing the digital signal from the A/D converting unit;

a controller for watching a state of the image

buffer, i.e., whether the fingerprint image is inputted and stored to the image buffer, and storing the fingerprint image to a video memory if the storage of the fingerprint image is confirmed;

5 a process executed by the controller, for setting a size of the fingerprint image frame;

 a process executed by the controller, for dividing the fingerprint image into a plurality of unit blocks with a predetermine size;

10 a process executed by the controller, for setting a section of predetermined subdivided blocks;

 a process executed by the controller, for dividing the fingerprint image into a predetermined size of center region including a predetermined number of unit
15 blocks; and

 a process executed by the controller, for dividing the fingerprint image into a peripheral region including a predetermined number of unit blocks.

20 6. The apparatus of claim 5, wherein when storing the fingerprint image to the video memory after dividing it into a plurality of unit blocks, the unit blocks of the center region are divided into at least two or more subdivided blocks and the peripheral region is divided
25 into a predetermined unit blocks by the controller.

7. The apparatus of claim 5, wherein the center region is set into at least one region.

8. The apparatus of claim 5, wherein the center
5 region comprises a second center region in which the
first unit block row and the last unit block row among
the section of set subdivided blocks are set and a first
center region in which the unit block except unit blocks
set as the second center region among set unit blocks B
10 are set.

9. A fingerprint image acquisition method
comprising the steps of:

confirming whether the fingerprint image generated
15 by contacting a finger on a surface of a fingerprint
sensing device unit is inputted and stored to an image
buffer;

dividing the fingerprint image into a
predetermined number of unit blocks if it is confirmed
20 that the fingerprint image is stored to the image
buffer;

setting the divided fingerprint image into a
center region and a peripheral region, each region
having a predetermined number of unit blocks, and
25 subdividing the respective unit blocks of the center
region into a predetermined number of subdivided blocks;
thereby obtaining the differentiated images at the

center region and the peripheral region.

10. The method of claim 9, wherein the unit block
of the center region of the fingerprint image is divided
5 into at least two or more subdivided blocks.

11. The method of claim 9, wherein the center
region is set as at least one or more region.

10 12. The method of claim 9, wherein the center
region comprises a second center region in which the
first unit block row and the last unit block row among
the section of set subdivided blocks are set and a first
center region in which the unit block except unit blocks
15 set as the second center region among set unit blocks
are set.

13. A fingerprint image acquisition method
comprising the steps of:

20 confirming whether the fingerprint image generated
by contacting a finger on a surface of a fingerprint
sensing device unit is inputted and stored to an image
buffer;

25 setting a size of a fingerprint image frame if it
is confirmed that the fingerprint image is stored to the
image buffer;

dividing the fingerprint image into a plurality of

unit blocks with a predetermined size;

setting a predetermined subdivided block section;

dividing the fingerprint image into a
predetermined size of center region including a
5 predetermined number of unit blocks;

dividing the fingerprint image into a peripheral
region including a predetermined number of unit blocks.

14. The method of claim 13, wherein the unit block
10 of the center region of the fingerprint image is divided
into at least two or more subdivided blocks.

15. The method of claim 13, wherein the center
region is set as at least one or more region.
15

16. The method of claim 13, wherein the center
region comprises a second center region in which the
first unit block row and the last unit block row among
the section of set subdivided blocks are set and a first
20 center region in which the unit block except unit blocks
set as the second center region among set unit blocks
are set.